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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,574	12/19/2001	Jack Brass	16224.00046	1008

7590 10/20/2003

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EXAMINER

BARTH, VINCENT P

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/021,574

Applicant(s)

BRASS, JACK

Examiner

Vincent P. Barth

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6-12,15,17 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6-12,15,17 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 8.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 6, 7, 12, 15, 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalley, et al., U.S. Pat. No. 6,590,220 (8 Jul. 2003).
3. Referring to Claim 1, Kalley discloses that a lamp in the form of a flashlight may be used to detect leaks in, *inter alia*, fluid systems, such as air conditioning units (col. 1, ln. 15; col. 1, ln. 22; col. 1, lns. 45-62). Kalley does not explicitly use the term "fault", however, it is clear from the context of the instant Application that the term "fault" as used in the instant claim is consistent with the type of defects detected in Kalley, in which fluorescent materials are used to identify defects in a variety of contexts. Kalley discloses that the lighting source should be in the form of LED's, which may emit in the UV range (i.e. below 400 nm), as well as in the visible range (i.e. 400 to 500 nm) (see col. 1, lns. 50-52; col. 2, lns. 3-5; col. 4, lns. 28-30; col. 4, lns. 54-56). Applicant has claimed a particular range of 395-415 nm, however, such range falls within the range already set forth in Kalley. See MPEP §2144.05, (In the case where the claimed ranges 'overlap or lie inside ranges disclosed by the prior art' a prima facie case of obviousness exists), citing In re Wertheim, 541 F.2d 257, 191USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d

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1575, 16 USPQ2d 1934 (Fed.Cir. 1990). It should also be emphasized that particular fluorescent dyes may require a particular spectral range. Therefore, those practicing the Kalley invention would likely expect that the spectral output of the lighting device (and thus the particular LED's) would be selected depending on which dye is present, and would thus be somewhat variable. Note also, that although Kalley discloses embodiments in which filters are used in connection with the generation of light of the desired wavelength to fluoresce leak detection fluids, Kalley also explicitly discloses that the LED's may be selected to have a narrow spectral output, so as to avoid the need for filters (col. 4, Ins. 54-56; col. 8, Ins. 13-33). Kalley discloses that the LED's can be of a type in which the angle light emitted forms an angle of +/- 35 degrees, or less, as is desirable by those practicing the invention (col. 8, Ins. 33-41). See MPEP §2144.05, (In the case where the claimed ranges 'overlap or lie inside ranges disclosed by the prior art' a prima facie case of obviousness exists), citing In re Wertheim, 541 F.2d 257, 191USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed.Cir. 1990). Moreover, Applicants do not disclose that the particular range provides a new and unexpected result over the prior art, thus the range claimed is a non-critical limitation. The MPEP §2144.05(III) states that, "the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). See MPEP §716.02 - §716.02(g) for a discussion of criticality and unexpected results. Accordingly, the modification claimed over the prior art would have been obvious to those skilled in the art at the time of the invention. Continuing now with the discussion of the Kalley reference, Kalley discloses that the LED's may be a single LED, or an array (col. 8, In. 54).

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4. Referring to Claims 4 and 6, Kalley discloses that the device comprises a housing (Fig. 7), and that the open end has at least one LED disposed such that the light emits outward. Kalley discloses that the LED's may be a single LED, or an array (col. 8, ln. 54), without limitation as the number of LED's. Therefore, those practicing the Kalley invention would expect to have additional LED's numbering at least 20, as might be necessary to cause the particular fluorescent dye to fluoresce. See MPEP §2144.04(VI)(B), citing, In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) (mere duplication of parts has no patentable significance unless a new and unexpected result is produced.)

5. Referring to Claim 7, Kalley discloses all of the claimed features, and but does not explicitly disclose that the voltage of the power supply is higher than the rated voltage of the LED's. However, Kalley implies that the power supply can deliver a voltage higher than the rated LED voltage, since the disclosure states that a 6V power source may be used for a 4.5V lamp (col. 7, lns. 4-6).

6. Referring to Claim 12, Kalley discloses that the unit is powered by a battery 28 (see Figure 1, and col. 6, ln. 67).

7. Referring to Claims 15, 19 and 23, Kalley discloses that a lamp in the form of a flashlight may be used to detect leaks in, *inter alia*, fluid systems, such as air conditioning units (col. 1, ln. 15; col. 1, ln. 22; col. 1, lns. 45-62). Kalley does not explicitly use the term "fault", however, it is clear from the context of the instant Application that the term "fault" as used in the instant claim is consistent with the type of defects detected in Kalley, in which fluorescent materials are used to identify defects in a variety of contexts. Kalley discloses that the lighting source should be in the form of LED's, which may emit in the UV range (i.e. below 400 nm), as well as in the

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visible range (i.e. 400 to 500 nm) (see col. 1, Ins. 50-52; col. 2, Ins. 3-5; col. 4, Ins. 28-30; col. 4, Ins. 54-56). Applicant has claimed a particular range of 395-415 nm, however, such range falls within the range already set forth in Kalley. See MPEP §2144.05, (In the case where the claimed ranges 'overlap or lie inside ranges disclosed by the prior art' a prima facie case of obviousness exists), citing In re Wertheim, 541 F.2d 257, 191USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed.Cir. 1990). It should also be emphasized that particular fluorescent dyes may require a particular spectral range. Therefore, those practicing the Kalley invention would likely expect that the spectral output of the lighting device (and thus the particular LED's) would be selected depending on which dye is present, and would thus be somewhat variable. Note also, that although Kalley discloses embodiments in which filters are used in connection with the generation of light of the desired wavelength to fluoresce leak detection fluids, Kalley also explicitly discloses that the LED's may be selected to have a narrow spectral output, so as to avoid the need for filters (col. 4, Ins. 54-56; col. 8, Ins. 13-33). Kalley discloses that the LED's can be of a type in which the angle light emitted forms an angle of +/- 35 degrees, or less, as is desirable by those practicing the invention (col. 8, Ins. 33-41). See MPEP §2144.05, (In the case where the claimed ranges 'overlap or lie inside ranges disclosed by the prior art' a prima facie case of obviousness exists), citing In re Wertheim, 541 F.2d 257, 191USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed.Cir. 1990). Moreover, Applicants do not disclose that the particular range provides a new and unexpected result over the prior art, thus the range claimed is a non-critical limitation. The MPEP §2144.05(III) states that, "the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." In

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re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). See MPEP §716.02 - §716.02(g) for a discussion of criticality and unexpected results. Accordingly, the modification claimed over the prior art would have been obvious to those skilled in the art at the time of the invention. Continuing now with the discussion of the Kalley reference, Kalley discloses that the LED's may be a single LED, or an array (col. 8, ln. 54).

8. Claims 8-11, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalley, et al., U.S. Pat. No. 6,590,220 (8 Jul. 2003), in view of Lebens, et al., U.S. Patent No. 6,305,818 (23 Oct., 2001).

9. Referring to Claims 8-10, 17 and 18, Kalley discloses all of the claimed features, but does not explicitly disclose that the lighting unit contains any particular lens for focusing, or a Fresnel lens. Lebens discloses that a Fresnel lens may be used to provide a focusable light source (col. 6, ln. 66), and thus focal distances would be varied at the discretion of those practicing the invention. Kalley discloses that the light may be used at a variety of distances, such as 5 feet (col. 5, ln. 2), thus the precise focal distance of 5-10 feet as in Claim 10 is clearly within the normal range of distance one would expect from the disclosure of either Kalley, or the combination of Kalley and Lebens. Kalley and Lebens are analogous art, since they are from a similar problem solving area, in that each involves an LED flashlight used to illuminate fluorescent material. For example, Lebens discloses that the light may be used for "general purpose illumination" (col. 2, ln. 5), as well as illuminating fluorescent materials (col. 6, lns. 39-46). See Medtronic, Inc. v. Cardiac Pacemakers, 721 F.2d 1563, 1572-1573, 220 USPQ 97, 103-104 (Fed. Cir., 1983). The motivation for combining the reference would have been to improve

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the focusing ability of the lighting unit disclosed in Kalley. Accordingly, it would have been obvious to those skilled in the art to combine the references, at the time of the invention, in order to obtain such benefit.

10. Referring to Claim 11, Lebens does not explicitly disclose that the lens unit is removable, however, Kalley discloses that the optics disposed in front of the LED's (for example, Figure 2, element 4) is removable. Accordingly, the combination of Kalley and Lebens would include a Fresnel lens which is removable. In the alternative, it is implicit in Kalley that the optics disposed in front of the LED's are removable, since virtually all such optics are removable. See MPEP §2144.01.

Comments

11. Counsel for Applicant, Richard P. Bauer, requested a Personal Interview, which was granted, and for which a summary is included herewith. The Examiner appreciates the sincere and diligent efforts of Counsel to elucidate certain features of Applicant's invention. The presentation by Counsel included a discussion of one embodiment of the instant invention, in which air conditioning leaks are detected with the device and methods. Therefore, a new reference has been provided in the present Office Action as a basis for rejection, to reflect such aspect of the instant invention. Moreover, several references of interest have been set forth directly below in the next paragraph herein. Accordingly, this present Office Action is non-final, thereby permitting Applicant an opportunity to respond to new bases of rejection, as well as providing any comments on the references cited as of interest. In this connection, note that the

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Gutbier reference cited in the previous Office Action is not withdrawn, *per se*, since the Examiner is still of the opinion that the reference was an appropriate basis of rejection.

However, the Kalley reference should certainly form the basis of a more productive prosecution from this stage forward.

12. The following additional references are of particular interest, in that each discloses UV wavelength LED's disposed in hand-held lighting devices, and indeed some of the references explicitly discuss leak detection involving fluorescent dyes, etc. Cooper, et al., U.S. Pat. No. 6,491,408 (10 Dec. 2002); Cooper, et al., U.S. PG-Pub. No. 2003/0007345 (9 Jan. 2003); Cooper, et al., U.S. PG-Pub. No. 2003/0007346 (9 Jan. 2003); Cooper, et al., U.S. PG-Pub. No. 2003/0142489 (31 Jul. 2003); Belliveau, U.S. Pat. No. 6,357,893 (19 Mar. 2002) (see Figure 11B); Sosinsky, U.S. PG-Pub. No. 2003/0098425 (29 May 2003). Each of these references should be available to Applicant electronically via the Internet, therefore, copies of the references have not been provided herewith. However, should Applicant have any difficulty obtaining the references, copies will be furnished upon request.

CONCLUSION

13. Applicant's Claims 1, 4, 6-12, 15, 17-19 and 23 are rejected based on the reasons set forth above.

14. Applicant has cancelled Claims 2, 3, 5, 13, 14, 16, 20-22 and 24.

15. Any inquiries concerning this communication from the Examiner should be directed to Vincent P. Barth, whose telephone number is 703-605-0750, and who may be ordinarily reached from 9:00 a.m. to 5:30 p.m., Monday through Friday. *The official fax number for*

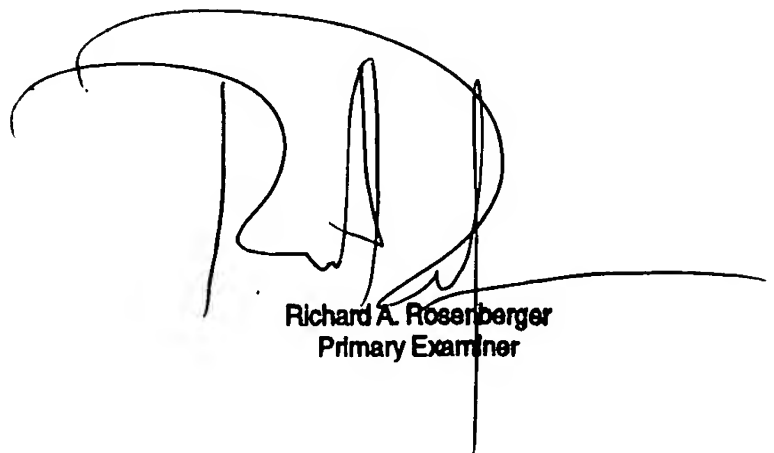
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communications to the group is 703-872-9306, both before final actions and after final actions.

Note that this fax number is new, and replaces the numbers provided in previous communications from the group.

16. If attempts to reach the Examiner prove unsuccessful, the Examiner's supervisor is Frank G. Font, who may be reached at 703-308-4881.

17. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



Richard A. Rosenberger
Primary Examiner